

# Project Overview

 [digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/conservation-tales-immersive-l/project-overview](https://digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/conservation-tales-immersive-l/project-overview)



Conservation Tales team, 2021

Do you know that YOU live near wildlife that are endangered or threatened? Are you aware that YOU can do things around your home and in your community that help protect those species? Have you ever met a scientist who studies those species?

Since 2016, a team of Ball State faculty and students have been collaborating with wildlife biologists around the world to tell stories that help children learn some key lessons - "Everyone can protect wildlife!" and "Anyone can be a scientist!"

Both of these messages are important objectives of this project. In the Conservation Tales books, these two themes are strongly emphasized in the stories, the characters, and the activities.

Conservation Tales Team Process

The process of developing the books lets students put the skills from their majors to work as they meet the scientists, develop characters, create sketches, drawings and photographs, write stories, and design the layout for the books and promotional materials. The final result is a published book, printed by Kindle Direct Publishing, marketed by Airway Publishing, and available online through the project site and on Amazon. To see how the team accomplishes this, click on the **"Our Process"** page.



### The 2021 Conservation Tales books

The result is a series of books written for children in grades 3-5. Each story introduces a child who wants to know more about an animal. That curiosity provides an opportunity to meet REAL scientists to learn about the animals and the ways people study and protect them. The stories culminate in a set of "Conservation Actions" and "Inquiry Activities" that let readers take part in authentic conservation and scientific investigation! You can see more about the books on our **"Products"** page.

Creation of the books is done by a team of Ball State students enrolled in ART 370 - "Art Immersive: Conservation Tales." The team includes illustrators, graphic designers, photographers and science writers from majors like elementary education, science education, biology, NREM, and special education. You can find out more about our crew from Spring 2021 by clicking on the **"Meet the Team"** page!



The Conservation Tales books get their authenticity by telling the real stories of wildlife scientists and conservationists. Each book team works with "Content Consultants" such as university researchers, government scientists, zoos, aquariums, and more! Our external partners also include community organizations who help us offer outreach and education opportunities to share our stories. To see a list of our partners in 2021 and from past years, visit the "**Partners**" page.

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[Overview](#)



# Conservation Tales Immersive Learning Project

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Conservation Tales is an interdisciplinary team of students and faculty who work with a variety of external partners to create children's books about wildlife conservation and authentic science practices. In 2021, our external partners include the Ball State Biology Fisheries Research lab, the BSU Field Station and Environmental Education Center, and the Indianapolis Zoo.

The books produced in Spring 2021 feature Monarch Butterflies and Invasive Carp, and will join 13 previous volumes in the project's catalog. Each book presents two important messages for children - "Everyone can protect wildlife," and "Anyone can be a scientist."

Students on the team include animation and drawing majors, visual communications students, science educators, and photographers. The team shadows and interviews scientists who study a key species, and develops a story about a child who learns about the animals, the scientists, and conservation actions the readers can do at home.

Characters reflect a diverse group of scientists and children, and the books include inquiry learning activities ideal for schools, informal education and home learning.

## Credits

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Tom J. McConnell, Dept. of Biology & Barbara Giorgio-Booher, School of Art



# Meet the Team

 [digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/conservation-tales-immersive-l/meet-the-team](https://digitalresearch.bsu.edu/immersive-learning-showcase-2021/exhibits/show/conservation-tales-immersive-l/meet-the-team)



The Spring 2021 Conservation Tales team is developing books in a new "Midwest II" series. Meet the members of the team below, or visit the [Meet the Team](#) page on the Conservation Tales website.

Tom J. McConnell & Barbara Giorgio-Booher served as author and art director on each of the Conservation Tales books.

Tom McConnell is a Professor of Science Education in the Department of Biology. Barbara Giorgio-Booher is a Teaching Professor in the School of Art.

You can see profiles of each member of the team on the project website:

[Meet the 2021 Conservation Tales Team!](#)

← Products  
Partners →  
Team

# Current Team

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 [conservationtales.com/current-team.html](https://conservationtales.com/current-team.html)



## The 2021 Midwest Series Team

The Midwest Series will soon have two new books, expected to be published in May or June of 2021, about monarch butterflies and invasive Asian carp. These two books will be produced with help from the researchers and staff at Ball State University, the Indianapolis Zoo, and the Indiana DNR. Watch for updates here!

Meet our team who helped create the books!



Tom J. McConnell & Barbara Giorgio-Booher served as author and art director on each of the Conservation Tales books.



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**Sunnie Berning** is a student within Ball State's Visual Communications program. Sunnie is a designer on the team and works on the both new books in the Midwest Series.



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**Jayda Cleaveland** is the lead graphic designer for the Asian Carp book at Conservation Tales and a senior at Ball State University. In May 2021 she plans on graduating with a BFA in Visual Communications. She hopes to use her degree to be a part of more impactful projects that can benefit the community.



**Abbey Jessup** is a junior at Ball State studying photography. Her photos will be in both the Asian Carp book and the Monarch Butterfly book, as well as the Asia series. She is excited to be working with the team again and see her work being used to help animal conservation.

**Sara Misak** is a Visual Communications major and Biology Minor at Ball State University. She is excited to be a part of the Conservation Tales team because it combines her love of science and art.

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**Ashley Owens** is the co-author of the monarch butterfly book and studies Life Science Education at Ball State. She also contributed illustrations of the butterflies for the book.



**Alyssa Shoults** is a student in the Visual Communications program and is the designer for Monarch Butterflies. She also worked as a designer for Tigers in 2020 and the photographer for the Africa Series in 2019. She is the first team member to fill two different roles on the team in different years!

**Allison Smiley** is an illustrator for the Monarch Butterfly book. She is a junior majoring in Drawing working to get her BFA at Ball State University.

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**Jillian Spangler** joined the team as a character designer in the Spring 2021 semester. She worked on the Monarch Butterflies book. She graduates in 2022 with a BFA in Art with a concentration in Animation. She hopes to one day work on an animated film or show and to inspire other fellow artists or young people to pursue their dreams, too.



**Katie Wiley** Katie Wiley is a graduate of Ball State University and is the character designer for the Invasive Carp book. She loved being able to work with a team and meet scientists to see a children's book through completion. She graduated in May 2021 with plans to pursue her goal of working in TV animation.

# Our Process

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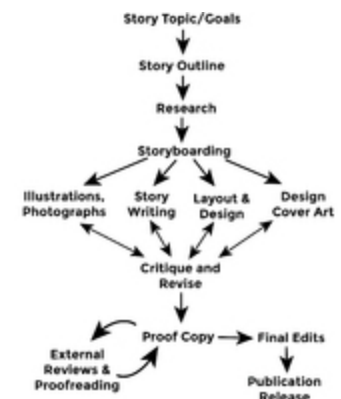
## Conservation Tales Team, Spring 2021

Book development process. (McConnell & Giorgio-Booher, 2020)

The Conservation Tales project has developed a process for a team of students to develop books in a single semester. This page shows key elements in the process.



Each book is created by a team of students including illustrators, science writers, photographers and graphic designers. The process and team structure was developed as the project grew from a single illustrator to the plan you will see in this exhibit.



As the project grew, innovative ideas were suggested by students, and project finally reached its current structure in 2019. As part of the dissemination of the project, the faculty advisors published an article that includes the figure shown here that explains the process used to develop the books. (McConnell, T. J. & Giorgio-Booher, B. (2020). Collaborative Teams for Self-Publishing: A model for creating locally-relevant educational books. *Global Journal of Transformative Education*, 2, 33-45.)

The following information is organized to reflect the process shown in the figure.

**As you read, click the images to see larger versions!**

Artists sketching carp in the pond at Rinarch Orchid Greenhouse.

## Research

Each Conservation Team begins with researching the topic. This entails communicating with scientists who study the featured species, interviewing them, observing them at work, and meeting the animals and their habitats. When possible, the team travels to visit scientists in the field.







Illustrator Ashley Bowling sketches carp at the Rinard Orchid Greenhouse pond.

COVID precautions made travel difficult in 2021, so the team focused on researchers at Ball State. Travel included local visits to sites with habitats, meetings with scientists, and two trips to the Indianapolis Zoo. The books developed will add to a previous "Midwest Series" that features species and scientists found here in Indiana.



Interviewing content consultant Erica Forstater.

During the trips, team members sketch animals and habitats, people, and relevant scenery. The team also collects photographs and interviews the researchers. While Zoom meetings and emails are useful for gathering information, the authenticity of the books is enhanced greatly when students meet the scientists in their workplaces, and gain a deeper understanding the scientists and their research in a real-world context.

Monarch Butterfly team visits a local prairie park near the White River.

The Invasive Carp team learns first hand about the aquatic invertebrates that are threatened by invasive fish species by sampling the White River.



The research also helps the team understand the animals and habitats featured in the books.

This research gives the Conservation Tales books a level of authenticity that is rare in children's books about wildlife. The animals are drawn as accurately as possible for the books, without anthropomorphizing them. Children, teachers, parents and scientists have all reported that the





combination of photographs and illustrations in the Conservation Tales books helps readers recognize that the stories we tell are based on REAL science, REAL animals, and REAL problems.

By combining authentic images and stories that show what scientists do, the team is able to convey two important messages in the books:

**"Everyone can protect wildlife!"**

**"Anyone can be a scientist!"**

Team members meet to create storyboards.

Team members create sketches and convert them to PDF to integrate text.

## Storyboarding

Another early step is to develop an outline of the story and a storyboard. Team members decide who the characters will be, including the diversity characteristics we include in each book. They work with Dr. McConnell to build a story framework, then the team develops initial storyboards. This skill is standard practice in animation and digital story telling.

The storyboards are also a first chance to plan the images for the book and lay out a plan to integrate text. Artists, photographers and graphic designers meet to create the storyboard. They then meet each class meeting to revise the storyboard as they start work on the illustrations and design work.

At the same time, the co-authors flesh out the story text, writing dialog, and analyzing to make sure the text is at an appropriate reading level for grades 3-5.

Ashley sketching Rocky at the Indy Zoo.

Sketchbooks help with team planning and critiques

## Sketchbooks

**Click the images to see the larger version**

As they research and observe the animals, scientists and scenery, team members use sketchbooks to make initial drawings, develop illustrations and take notes.



In the classroom meetings, the team shares the sketches, and discuss ideas for illustrations and stories based on the images.

All team members are provide materials to create sketches. Each artist picks the medium they use to illustrate the book, and the team then collaborates to ensure that images use similar color palettes and styles.

Working in the studio to develop content.

Allison uses gouache paints for the Monarch book.

Illustrator Ashley Bowling works with digital painting tools to create images for the Invasive Carp book.

### **Book Production Process**

Research and observation leads to production work. The team uses the contents of sketchbooks and journals to write the story, draw and paint illustrations, collect and edit photographs, and create page layouts for the books, promotional materails, and educational resources.

Team members choose the media in which they create illustrations, and the project provides media, paper and tools for the artists. The team uses class time to work on images, including studying other examples of illustration styles, specimens and models in the classroom, and resources from content consultants.

Some illustrators create images using digital painting tools. The team uses animation labs in the School of Art, tablets and laptops to sketch, outline and paint the media.

The teams create samples, then save scan or photograph the images. Graphic designers then combine the images in Photoshop to see if the styles blend well. Digital tools can also help add features like shadows, ripples in water, and other accents that make the combination of multiple images look seamless to the reader.

CT Team critique each other's work in each meeting.

Teams discuss and plan in collaborative groups.

As the teams create text and images, they share works in progress during critique sessions. This is a typical practice in art courses, but for non-artists on the team, this is a new process.





In the critiques, everyone in the course can ask questions, suggest changes to images or ways to improve illustrations, and help shape final decisions to improve the overall quality of the product.

This collaborative project often generates creative ideas for the stories, including connections to previous books, "Easter eggs" that the team places in the layouts, and revising to ensure we accurately depict what we learned from the scientists.

Abbey Jessup, CT photographer

Photographer Abbey Jessup at work in photo studio

Photographs are also used in the book. Abbey Jessup is the team's photographer, and she takes photos for the book. She sorts and edits images, chooses the best quality images for the book, and helps organize the files for the graphic designers. Other team members also sometimes contribute photos for the project.

In most books, we also find we need to use images from the scientists, and photos from third-party sources. Any images from outside the team must be credited to the source, and Abbey's job includes documenting the sources, and any permissions or licenses needed in order to use the photos. The project uses public domain and Creative Commons sources when needed, so documenting this information and creating a "Photo Credits" page for the book and the website.

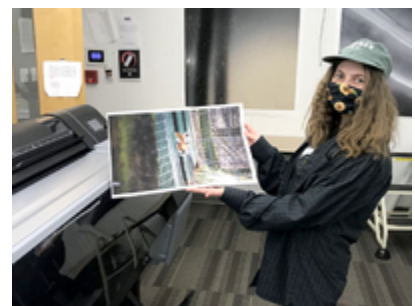
Abbey also documents the team's activities. Images or the collections of books, our site visits, and classroom activities are used for social media, websites, promotional materials, and presentations.

Graphic designer Alyssa Shoults compiles the elements into a final page layout.

Sample of a "spread"

## Design and Layout

Graphic designers from the Visual Communications program then compile artwork, text, and photographs into the final book layouts. The designer contributes to the planning of the book from the very start, and



then combine all the content of the books into a final format.

The designers use industry-standard software, and base the designs on a style guide created by a previous member of the team to ensure continuity through the multi-year study. Experienced members of team teach younger members the process to help provide experience across multiple years.



Graphic designers also help create a "series logo" for each year's team using the primary logo and images of the animals featured in the books. The logo is used for t-shirts, name badges we wear for site visits, and posters. The designers also develop posters, graphics for social media and the website, and educational materials.

First Thursday promotional poster

Poster promoting photo exhibit

Poster about Diversity for CT 2021

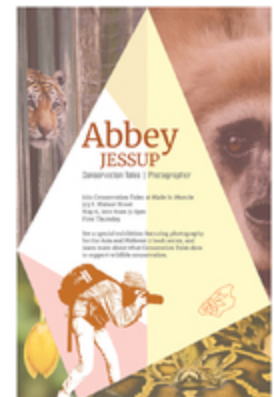
## Outreach and Engagement

The Conservation Tales team also shares what they have learned and the educational materials that accompany the books for outreach and engagement with the community.



While COVID precautions have restricted this engagement for the last year, the team will present an exhibit at the May 2021 First Thursday event. See the promotional photo at the right created by Graphic Designer Sarah Misak.

Sarah has also produced a poster about the diversity of CT characters as a way to convey the message that "Anyone can be a scientist." This poster will be used for future events.



Previous cohorts took part in First Thursday events, community garden fairs and craft shows, after-school reading programs at local schools, and learning and art activities at local venues like the Ross Community Center, Minnetrista, and Nature Play Days. The team was also invited to exhibit artwork and host a Community Day event at the Midwest Museum of Natural History in Sycamore, IL. To date, Conservation Tales team members have been part of 29 different community outreach and engagement events.





# Partners

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## Conservation Tales

The 2021 Conservation Tales team is working with three external partners:

- The Indianapolis Zoo
- The Venturelli Lab (Ball State University Fisheries Program)
- The Stream Ecology Lab (Ball State University Fisheries Field Program)
- The Rinard Orchid Greenhouse
- The BSU Field Station and Environmental Education Center

These Content Consultants are the scientists featured in the 2021 Midwest 2 Series books, and their research is the model for the story. They also review text of the story to ensure content accuracy and authenticity. Consultants also share photos that often are used in our books.

Indianapolis Zoo, White River Gardens

Observing in Oceans Building

Meeting at Global Center for Species Survival

Observing butterflies in White River Gardens

The Conservation Tales Team has a strong relationship with the Indianapolis Zoo, one of our Content Consultants. We traveled to the Zoo twice in Spring 2021. Our visits are an opportunity to do research and develop sketches and photos for the books.

Observations included time in the Ocean Building to work on sketching the effect of light under water, and getting up close with butterflies in the White River Gardens. Information from these observations helps with the two books we are currently developing.

The 2021 team also was invited to be the first group to meet in the new Global Center for Species Survival to learn from Sr. VP Bill Street about that groups plan to collaborate with universities to help communicate conservation messages to the public.





The team also had time to meet some other animals and take photos and make sketches.

Cheryl LeBlanc of the Rinard Orchid Greenhouse

Erica Forstater of BSU's Field Station & Environmental Education Center

The Rinard Orchid Greenhouse was another site visited by the team. The staff of the greenhouse taught the team about monarch butterflies, and both teams worked on illustrations and sketches of carp, turtles and the plants in the greenhouse.

The Rinard Orchid Greenhouse and the Environmental Education and Field Sites are developing a monarch waystation and butterfly trail. Their experience in raising and hatching monarchs and teaching about their life cycle was instrumental in shaping the story.

Cheryl and Erica will also review the text of the story for accuracy. When the books are done, copies will be kept at the Greenhouse for educational programs, and future outreach by our team may take place at Christy Woods and the Greenhouse.

The Venturelli Lab and the Pyron Lab in the Fisheries programs at Ball State served as Content Consultants for the Invasive Carp book. They helped the team learn about research on invasive carp, the equipment used, and the ways scientists use data collected from the Fish Brain app to study fish populations.

Paul Venturelli, BSU Fisheries professor

Mark Pyron, BSU Fisheries Professor

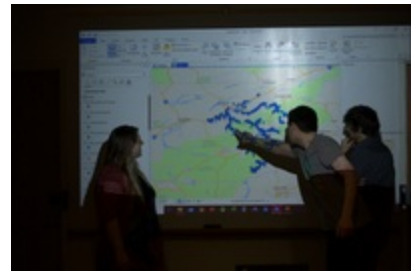
Consultants explaining how they use data.

BSU Fisheries researchers in the field

← Team

Partners





# Products

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## 2021 Midwest II Series

The Conservation Tales team produces two published books each Spring semester. Since 2016, the project has completed 13 books. The Spring 2021 cohort will complete two new books to add to the series.

The new titles coming in May 2021 are "Monarch Butterflies" and "Invasive Carp." These books reflect the research and conservation work by three teams of faculty, staff and students at Ball State University.



The Conservation Tales series includes 13 book titles.

Since its inception in 2016, the Conservation Tales project has published 13 books. You can see more about the project at the **Conservation Tales** website.

The team also creates promotional materials and educational activities. Members of the Spring 2021 team developed a Project Prospectus booklet to share with possible partners and donors, posters to promote the series, and card sort game about Monarch Butterflies.

← Process

Team →

Products



# CONSERVATION TALES

Books about wildlife conservation for young readers

By Tom J. McConnell

Art Director, Barbara Giorgio-Booher

## Book Release!



**Now Available!**  
[conservationtales.com/estore](https://conservationtales.com/estore)



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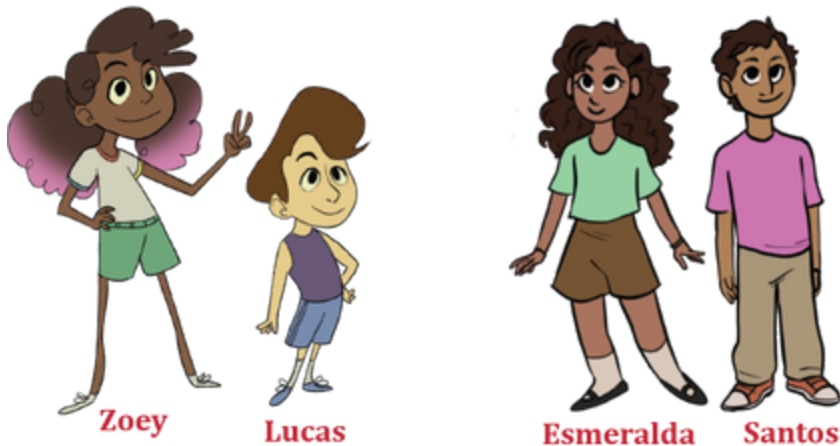


Watch this  
video about  
Conservation  
Tales!



Learn more  
about the

## Meet Our New Conservation Tales Characters!



Conservation  
Tales process  
by browsing  
the team's  
2021  
Immersive  
Learning  
Showcase  
Exhibit!

Click the link,  
and use the  
menu to see  
what the  
current CT  
Teams have  
been doing!

We're excited to introduce the characters from two new Conservation Tales books!

Our new team of writers, illustrators, designers and photographers are hard at work on books about monarch butterflies and invasive carp. Zoey and Lucas help us learn about science and conservation to protect native fisheries. Esmeralda and Santos lead our trip to learn about monarch butterflies. The scientists they learned from are based at Ball State University and across Indiana, so we are back in our home territory for our work during the COVID pandemic.

Both books join our Midwest Series, and they are now ready for you to purchase!

### **What is Conservation Tales?**

#### **Watch a short video about Conservation Tales**

Find out more about the project!

#### **Sponsors Page**

We thank our donors for their generous support! You make a difference! Our campaign has ended, but there are still ways you can donate to support our project.

**Contact us** to find out how!

Your donations are tax deductible.  
Donations are given through the Ball State Foundation,  
a 501(c)3 charitable foundation, and deposited in a fund  
for Conservation Tales.  
Tax ID 35-6024566